

## AMENDMENTS TO THE CLAIMS

### Listing of the claims:

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

1. (Canceled)

2. (Currently Amended) A mobile communication system having a plurality of radio packet channels having different transmission rate from each other between each of a plurality of base stations and a mobile station, said mobile station comprising:

means for measuring a signal quality of a receive signal from each of the plurality of base stations;

means for assigning packet rate relating to said signal quality thus measured;

means for transmitting said packet rate to a respective base station of the plurality of base stations; and

data terminal for transmitting and receiving data to and from the base station with said assigned packet rate according to claim 1,

wherein said signal quality is defined by distance between a respective base station of the plurality of base stations and said [[a]] mobile station.

3., 4. (Canceled)

5. (Currently Amended) A mobile communication system having a plurality of radio packet channels having different transmission rate from each other between each of a plurality of base stations and a mobile station, said mobile station comprising:  
means for measuring a signal quality of a receive signal from each of the plurality of base stations;  
means for assigning packet rate relating to said signal quality thus measured;  
means for transmitting said packet rate to a respective base station of the plurality of base stations; and  
data terminal for transmitting and receiving data to and from the base station with said assigned packet rate according to claim 1,  
wherein said signal quality is defined by distance between the mobile station and a border of cells of the base station to which said mobile station belongs and an adjacent base station.

6. (Currently Amended) A mobile communication system having a plurality of radio packet channels having different transmission rate from each other between each of a plurality of base stations and a mobile station, said mobile station comprising:  
means for measuring a signal quality of a receive signal from each of the plurality of base stations;  
means for assigning packet rate relating to said signal quality thus measured;  
means for transmitting said packet rate to a respective base station of the plurality of base stations; and

data terminal for transmitting and receiving data to and from the base station with said assigned packet rate according to claim 4,

wherein said signal quality is defined by difference  $\Delta S = S_1 - S_{\max}$ , where  $S_1$  is level of pilot signal transmitted by the base station to which the mobile station belongs received at said mobile station,  $S_{\max}$  is the highest level among  $S_2$  through  $S_n$  of the pilot signals from adjacent base stations received at said mobile station.

7., 8. (Canceled)

9. (Currently Amended) A mobile communication system having a plurality of radio packet channels having different transmission rate from each other between each of a plurality of base stations and a mobile station, said mobile station comprising:  
means for measuring a signal quality of a receive signal from each of the plurality of base stations;

means for assigning packet rate relating to said signal quality thus measured;

means for transmitting said packet rate to a respective base station of the plurality of base stations; and

data terminal for transmitting and receiving data to and from the base station with said assigned packet rate according to claim 4,

wherein the highest packet channel is assigned so that the following inequality is satisfied;  $P_{\max} \geq I - L + SIR - G + A$ ; where  $P_{\max}$  is the maximum transmit power of a packet channel,  $L$  is propagation loss measured at said  $[[a]]$  mobile station,  $I$  is interference power measured at said  $[[a]]$  mobile station,  $SIR$  is desired  $SIR$  for each

packet channel, G is process gain for said each packet channel, and A is compensation factor for compensating characteristics of antenna and equipment.

10. (Currently Amended) A mobile communication system having a plurality of radio packet channels having different transmission rate from each other between each of a plurality of base stations and a mobile station, said mobile station comprising:

means for measuring a signal quality of a receive signal from each of the plurality of base stations;

means for assigning packet rate relating to said signal quality thus measured;

means for transmitting said packet rate to a respective base station of the plurality of base stations; and

data terminal for transmitting and receiving data to and from the base station with said assigned packet rate according to claim 1,

wherein said base station comprises:

means for receiving packet rate from said [[a]] mobile station,

means for determining number of frames for continuous transmission for said each packet rate,

means for transmitting said number of frames thus determined to said [[a]] mobile station so that communication with said mobile station is carried out with a the determined packet rate and the determined number of frames.

11. (Currently Amended) A mobile communication system having a plurality of radio packet channels having different transmission rate from each other between each of a plurality of base stations and a mobile station, said mobile station comprising:

means for measuring a signal quality of a receive signal from each of the plurality of base stations;

means for assigning packet rate relating to said signal quality thus measured;

means for transmitting said packet rate to a respective base station of the plurality of base stations; and

data terminal for transmitting and receiving data to and from the base station with said assigned packet rate,

wherein said base station comprises:

means for receiving packet rate from said mobile station,

means for determining number of frames for continuous transmission for said each packet rate,

means for transmitting said number of frames thus determined to said mobile station so that communication with said mobile station is carried out with a determined packet rate and the determined number of frames according to claim 10,

wherein said number of frames to be transmitted continuously is adaptively controlled.

12. (Currently Amended) A mobile communication system having a plurality of radio packet channels having different transmission rate from each other between each of a plurality of base stations and a mobile station, said mobile station comprising:

means for measuring a signal quality of a receive signal from each of the plurality of base stations;

means for assigning packet rate relating to said signal quality thus measured;

means for transmitting said packet rate to a respective base station of the plurality of base stations; and

data terminal for transmitting and receiving data to and from the base station with said assigned packet rate according to claim 1,

wherein said base station comprises:

means for receiving packet rate from said mobile station,

means for determining number of frames for continuous transmission for said each packet rate,

means for transmitting said number of frames thus determined to said mobile station so that communication with said mobile station is carried out with a determined packet rate and the determined number of frames, and according to claim 40,

wherein a short packet transmission time is assigned when a high transmission rate packet channel is selected, and a long packet transmission time is assigned when a low transmission rate packet channel is selected.

13. (Currently Amended) A mobile communication system having a plurality of radio packet channels having different transmission rate from each other between each of a plurality of base stations and a mobile station, said mobile station comprising:

means for measuring a signal quality of a receive signal from each of the plurality of base stations;

means for assigning packet rate relating to said signal quality thus measured;

means for transmitting said packet rate to a respective base station of the plurality of base stations; and

data terminal for transmitting and receiving data to and from the base station with said assigned packet rate,

wherein said base station comprises:

means for receiving packet rate from said mobile station,

means for determining number of frames for continuous transmission for said each packet rate,

means for transmitting said number of frames thus determined to said mobile station so that communication with said mobile station is carried out with a determined packet rate and the determined number of frames, and according to claim 40,

wherein a small number of frames for continuous transmission and a large amount of data in each frame are assigned when a high transmission rate packet channel is selected, and a large number of frames for continuous transmission and a small amount of data in each frame are assigned when a low transmission rate packet channel is selected, so that data amount to be transmitted is uniform irrespective of selected transmission rate of a packet channel.

14. (Currently Amended) A mobile communication system having a plurality of radio packet channels having different transmission rate from each other between each of a plurality of base stations and a mobile station, said mobile station comprising:

means for measuring a signal quality of a receive signal from each of the plurality of base stations;

means for assigning packet rate relating to said signal quality thus measured;

means for transmitting said packet rate to a respective base station of the plurality of base stations; and

data terminal for transmitting and receiving data to and from the base station with said assigned packet rate

wherein said base station comprises:

means for receiving packet rate from said mobile station,

means for determining number of frames for continuous transmission for said each packet rate, and

means for transmitting said number of frames thus determined to said mobile station so that communication with said mobile station is carried out with a determined packet rate and the determined number of frames,

wherein a small number of frames for continuous transmission and a large amount of data in each frame are assigned when a high transmission rate packet channel is selected, and a large number of frames for continuous transmission and a small amount of data in each frame are assigned when a low transmission rate packet channel is selected, so that data amount to be transmitted is uniform irrespective of selected transmission rate of a packet channel, and according to claim 13,



wherein said base station, upon finishing transmission/reception of a number of continuous frames to/from said [[a]] mobile station, begins transmission/reception of said [[a]] number of continuous frames to/from a next mobile station, so that said [[a]] mobile station is switched recursively.